DEPARTMENT OF THE NAVY
NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON, DC 20361-0001

IN REPLY REFER TO
NAVAIRINST 4110.1
AIR-411
4 Oct 91

NAVAIR INSTRUCTION 4110.1

From: Commander, Naval Air Systems Command

Subj: HAZARDOUS MATERIAL CONTROL AND MANAGEMENT

Ref: (a) OPNAVINST 4110.2
(b) FAR PARA 52.223-3
(c) DFARS 252.223 7004
(d) FED-STD 313C
(e) OPNAVINST 5100.23B
(f) NAVAIRINST 4200.34
(g) OPNAVINST 5090.1A
(h) MIL-STD-101B
(i) CNO ltr 5090 Ser 451/8U583147 of 26 Jan 88 (NOTAL)

Encl: (1) Definition of Terms

1. Purpose. To establish policy, procedures, and assign responsibilities for the life-cycle control and management of hazardous materials acquired and maintained by the Naval Air Systems Command (NAVAIR) for internal or fleet use in order to ensure protection of personnel, the environment, and Navy property per reference (a).

2. Cancellation. This instruction cancels NAVAIR Instruction 5100.4 of 3 September 1982 and NAVAIR Instruction 6240.2 of 14 October 1982.

3. Scope

a. This instruction applies to all Navy material items for which NAVAIR has acquisition, management, and support responsibility. This instruction is not to be used as a primary requirements document, but as the guiding principle in implementing the requirements of Department of Defense, federal, state, and local regulations and laws governing hazardous materials (HM).

b. The Hazardous Material Control and Management (HMC&M) program includes, but is not limited to

(1) HM planning and acquisition;

(2) item entry control and cataloging including assignment of National Stock Numbers;

(3) packaging, handling, and storage;

(4) receipt, issue, and inventory management;

(5) transportation;

(6) disposal of excess HM (regulated by the Resource Conservation and Recovery Act); and elimination and minimization;

(7) and safety and health precautions. Training, marking, and labeling fall the under Occupation Safety and Health (OSH) and the Hazard Communication (HAZCOM) program.

4. Discussion

a. Reference (a) provides overall guidance to subordinate commands regarding HM laws, regulations, and policies.

b. The ultimate goal is to eliminate, where possible, all HM from the Navy inventory. Those materials that cannot be eliminated must be minimized, identified, justified, and stringently controlled throughout the material's life cycle. The control aspect is reliant upon OSHA Form 174, Material Safety Data Sheet, having accurate/complete data provided by the supplier. Reduction or elimination of HM will reduce the generation of environmental pollutants including hazardous waste (HW).

c. Federal, state, and local environmental agencies can curtail individual processes or shut down activities for noncompliance to their regulations. In addition, heads of activities can be held liable for infractions and may incur exorbitant legal costs. HW manifest forms and procedures may be obtained from the local Environmental Protection Agency office or state manifest contact.

d. As a result of current restrictions regarding disposal of HW at sea, aircraft carriers and other air capable ships must store their HW until it can be off-loaded at appropriate sites. The additional storage requirement caused by HW increases a critical space problem, and hampers aircraft maintenance and movement on the hangar decks of aircraft carriers and other air capable ships. To ensure our mission is not detrimentally impacted and to protect our personnel, each individual in the naval aviation team must participate to reduce HM and environmental pollutants resulting from their use.

e. The best approach to reduce HW and environmental pollutants is to design the HM out of the systems. This includes HM utilized in production, operations, and maintenance processes, or combinations of materials/solutions that, when blended, create HW.

f. The HMC&M program, through an integrated approach, brings together environmental programs, ashore and afloat OSH programs, and integrated logistics support (ILS) programs.

5. Definition of Terms. See enclosure (1) for definition of terms.

6. Policy. The Commander, Naval Air Systems Command is committed to the responsible stewardship of the environment using Total Quality Leadership principles to develop and implement material and process improvements to eliminate or minimize HM in the acquisition and life cycle phases.

7. Responsibilities

a. Naval Air Systems Command Headquarters (NAVAIRHQ)

(1) HMC&M Coordinator (AIR-411E) will:

(a) Provide overall coordination for HM control and management for the acquisition and logistics support of all NAVAIR managed systems and equipment throughout their life cycle.

(b) Act as the central NAVAIR point of contact (POC) for HMC&M issues.

(c) Provide liaison with Office of the Chief of Naval Operations, other NAVAIRHQ codes, and NAVAIR field activities regarding HMC&M program implementation.

(d) Ensure integration of NAVAIR HMC&M program initiatives with other systems commands.

(2) Logistics and Maintenance Policy Division (AIR-411) will:

(a) Develop and provide guidance for NAVAIR ILS managers regarding HM contractual matters.

(b) Develop, implement, and manage (in conjunction with the Lead Maintenance Technology Center (LMTC)) a HMC&M elimination/substitution program for all systems and operations under NAVAIR cognizance. The task of the program is to reduce/eliminate the use of hazardous materials in NAVAIR systems and thereby reduce environmental impact. Decisions as to use of HM or substitution of less hazardous materials will be supported by a life cycle analysis including impacts on product reliability, economic analysis, and intangible benefits. Cost factors and intangibles include savings from reduction of initial costs, capital equipment costs, annual maintenance disposal cost, training, and other HM/HW related impacts. Materials substitutions will require approval from the Air Vehicles Division (AIR-530), Materials and Processes Branch (AIR-5304), and Safety Office (AIR-09F).

(c) Develop and maintain (with AIR-530 concurrence) a program to specify the least hazardous technically acceptable materials to incorporate into authorized hazardous material use lists.

(d) Ensure Logistics Review Group audits include the establishment and approval of a HMC&M program as a contractual requirement.

(e) Develop and maintain (with AIR-09F assistance) a distribution list of NAVAIRHQ codes to receive and review OSHA Form 174 provided to contracting officers by apparent award winners.

(f) Ensure references (b), (c), and (d) are included in all NAVAIR solicitations and contracts.

(g) Ensure logistics requirements are provided for consideration/incorporation in HMC&M research, development, test, and evaluation (RDT&E) needs.

(h) Identify maintenance community material and process HMC&M needs to ensure that the needs are adequately addressed in HMC&M RDT&E plan.

(i) Manage, task, and direct the LMTC environment (E) for HMC&M technology application actions and requirements.

(j) Provide LMTC (E) technology application member to the RDT&E team.

(k) Provide logistics and maintenance inputs to AIR-530 materials, and processes test and evaluation plans.

(3) Supply Policy, Management and Financial Division (AIR-412) will:

(a) Review, develop, implement policies, and provide technical support to the HMC&M program concerning the supply, packaging, handling, storage, transportation, demilitarization, and disposal (via Defense Reutilization and Marketing Office (Property Disposal Officer)) of HM. Review or provide input to ILS and other documents in these matters.

(b) Support Naval Supply Systems Command (NAVSUPSYSCOM) and other activities in matters concerning the Hazardous Material Information System, Shipboard Hazardous Material List, Authorized Usage List, and other supply oriented HM data bases and allowance lists. Act as the NAVAIR POC for entry or extraction of data from any of these documents.

(c) Support NAVAIR logistics element managers (LEM) in supply system considerations for review of HM recommended for support of a weapons system.

(d) Review OSHA Form 174 for completeness and obvious discrepancies of transportation data (reference (d), section IX). Advise ILS manager and appropriate LEM(s) of possible impact if the HM is authorized for use.

(e) Ensure (in conjunction with AIR-411 and the LMTC) that only those HM items with a valid requirement, a completed OSHA Form 174, and authorized nonhazardous or less hazardous substitutes are not available enter the navy supply system.

(f) Ensure HM is available in small units of issue and adequate shelf life to generate the minimum amount of HW.

(g) Coordinate with NAVSUPSYSCOM and appropriate Inventory Control Point to expedite stocking of HM substitutes as they are identified.

(h) Coordinate HM elimination issues with NAVSUPSYSCOM as they may affect procurement policy and other logistics agencies (i.e., Defense Logistics Agency and General Service Agency).

(4) Facilities Management Division (AIR-422) is designated the Environmental Program Manager and will:

(a) Develop and institute the NAVAIR environmental policy.

(b) Provide command level coordination and direction for the HMC&M Program to the NAVAIR Environmental Steering Group and the NAVAIR Quality Management Board.

(c) Provide support for evaluation of contractor proposals for environmental management compliance.

(5) AIR-530 will:

(a) Provide direction and engineering support management for the HMC&M elimination/substitution program for NAVAIR procurements.

(b) Review existing specifications for aviation systems and equipment for HM requirements and recommend specification changes and/or control measures for hazardous material cited in the specifications.

(c) Monitor/participate in development of changes or control measures for HM cited in existing aviation systems and equipment specifications.

(d) Authorize changes to known materials that can be substituted for function and environment.

(e) Provide technical support on HM issues for Logistics Review Group audits (aid program in developing audit responses and support the Logistics Review Group Assessment Section (AIR-41113) in auditing Acquisition Category III and IV programs).

(f) Provide technical support to ongoing NAVAIR programs for obtaining adequate OSHA Form 174's.

(g) Provide program technical support for optimizing hazardous material choices and ensuring adequate material substitution efforts.

(h) Develop appropriate contract and program inputs to assure appropriate HM minimization and control.

(i) Assure input into procurement requests and requests for proposals.

(j) Provide technically competent support for proposal evaluation.

(k) Identify appropriate research and development to replace those materials that are not environmentally compliant.

(l) Identify naval aviation materials and processes development, test, and evaluation needs, and ensure that the needs are adequately addressed in HMC&M RDT&E plan.

(m) Direct development, test, and evaluation and provide approval/disapproval of new materials and processes prior to fleet implementation in support of the NAVAIR HMC&M RDT&E plan.

(6) The Technical Director for Research and Technology, Air Vehicles Division (AIR-530T) will:

(a) Provide executive oversight and direction to the NAVAIR Environmental RDT&E Team.

(b) Seek outside sponsorship and funding support for HMC&M RDT&E efforts.

(c) Monitor progress of all HM-related RDT&E efforts in NAVAIR.

(d) Assure that leverage of all HM-related RDT&E efforts outside NAVAIR is maximized.

(e) Plan, program, budget, and execute the NAVAIR HMC&M RDT&E program.

(7) The Technology Manager for Environmental RDT&E (AIR-551TB) will plan, program, budget, and execute the NAVAIR HMC&M RDT&E program.

(8) Safety Office (AIR-09F) will:

(a) Develop policy concerning safety precautions and personnel protective measures for HM. This includes administering the Navy OSH program and implementing the requirements of reference (e).

(b) Review OSHA Form 174, Material Safety Data Sheet, for NAVAIRHQ and forward to appropriate NAVAIRHQ divisions for review and action when required.

(c) Assist field activities in the implementation of HAZCOM program plans compliant with reference (a). The plans must identify specific methods used to achieve the informed and safe use of HM.

(9) Program Managers will provide resources within budgetary constraints for the support of the HMC&M program within their weapons systems as defined by reference (a), paragraph 8g.

(10) ILS Managers will:

(a) Ensure ILS planning, including the Logistics Support Analysis, Integrated Logistics Support Management Team meetings, and schedules, address HMC&M considerations per reference (a) requirements at the earliest acquisition cycle including the Procurement Planning Conferences per reference (f).

(b) Determine the use or rejection of HM recommended for use within their program.

(11) LEM's will:

(a) Advise ILS managers and interfacing LEM's of possible impacts and planning necessary to support HMC&M within a program.

(b) Identify funds within the Logistics Review and Funding Plan for HMC&M.

(12) Contracting Officers will:

(a) Provide contract support for the HMC&M program.

(b) Ensure compliance with Federal Acquisition Regulation, Defense Federal Acquisition Regulation, and Naval Acquisition Procedures Supplement regulations in contractual actions when technical personnel identify HMC&M requirements.

(13) NAVAIRHQ Division Directors will identify all HM within their work spaces and maintain a list of the HM with the applicable OSHA Form 174.

b. Head of NAVAIR Field Activities will:

(1) Designate a HMC&M Program Manager.

(2) Establish a Hazardous Material Control Committee to assist in the overall administration, management, and implementation of HMC&M programs.

(3) Conduct an activity-wide HM inventory and create an activity level authorized HM use list. (This list will be used to prepare the NAVAIR-wide HM use authorization list.)

(4) Obtain a OSHA Form 174 for each HM in the activity's inventory. (A command-wide collection of OSHA Form 174's will be used to support the overall Navy program effort of NAVSUPSYSCOM.)

(5) Ensure all HM containers are properly labeled as required by reference (d).

(6) Formally address the safe use of HM through appropriate local training programs for all personnel who work with or come in contact with HM per reference (c).

(7) Establish and implement activity controls for the local acquisition of HM to assist in overall command management and control.

(8) Establish controls for HM receipt, distribution, issue, and shipment. Ensure that incoming shipments of HM are rejected if they are not properly labeled or do not have OSHA Form 174 attached. Identify such shipments to NAVSUPSYSCOM via the Quality Deficiency Reporting system.

(9) Establish local procedures for the management of excess HM and HW per the Resource Conservation and Recovery Act (RCRA) and reference (g).

(10) Ensure OSHA Form 174's are readily accessible during each work shift to employees when they are in their work area(s).

(11) Establish and implement local procedures and actions for labeling of pipes and piping which transport HM per reference (h).

(12) Establish local procedures for requesting OSHA Form 174's from the manufacturer or supplier prior to an authorization for use of a new product.

(13) Develop an annual plan to reduce HW following Navy goals. Plan is to include list of changes in process and materials, timeframe for implementation, and expected reduction(s) in solid waste, HW, effluent, and air emissions.

(14) Provide recordkeeping and report HM as required by reference (i).

(15) Prepare a written Hazardous Material Control and Management plan to incorporate the requirements and policy of reference (a) and this instruction.

(16) Comply with NAVAIRHQ counterpart engineering, logistics, and safety disciplines, contained in paragraph 7a above, in the procurement of systems or equipment for naval aviation applications.

(17) Provide technical support and data to NAVAIRHQ concerning HM for cognizant weapons systems.

8. Procedures. NAVAIRHQ offices receiving HM directly from manufacturers must forward accompanying OSHA Form 174 to AIR-09F for review and appropriate action.

9. Forms

a. OSHA Form 174, Material Safety Data Sheet, is available from the Occupational Safety and Health Administration, Office of Publications, Room S1212, 200 Constitution Avenue, N.W., Washington, D.C. 20210, or from the General Services Administration (GSA) Business Service Centers in Boston; New York; Philadelphia; Atlanta; Chicago; Kansas City; Fort Worth; Denver; San Francisco; Los Angeles; Seattle; and GSA Specification Sales, Bldg 197, Washington, D.C. 10407.

b. EPA 8700-22A and state HW manifest forms are available from State Manifest Contacts. Addresses are available from the EPA Resource Conservation and Recovery Act (RCRA) Superfund Office: Telephone No: (800) 424-9346.

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DEFINITION OF TERMS

1. Acquisition. The acquiring by contract of supplies or services (including construction) with Navy funds, by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated. Acquisition begins at the point when agency needs are established and includes the description of requirements to satisfy agency needs, solicitation and selection of sources, award of contracts, contract financing, and technical and management functions directly related to the process of fulfilling agency needs by contract.

2. Excess Hazardous Materials (EHM). Ready-for-issue excess material classified as HM and no longer needed by the generating activity.

3. Hazardous Chemical. Any chemical that is a physical hazard or a health hazard per 29 CFR Section 1910.1200 (c), and with some exceptions as specified in the Community Right to Know Law of 1986. (Superfund Amendments and Reauthorization Act (SARA), Title III).

4. Hazardous Material (HM). Any material that:

a. Is regulated as a Hazardous Material per 40 CFR 173.2.

b. Requires a OSHA Form 174 per 29 CFR 1910.1200.

c. During end use, treatment handling, packaging, storage, transportation, or disposal meets or has components which meet, or have the potential to meet, the definition of a hazardous waste as defined by 40 CFR 261 Subparts A, B, C, or D. Designation of a material by this definition, when separately regulated or controlled by other instructions or directives, does not eliminate the need for adherence to that hazard-specific guidance which takes precedence over this instruction for "control" purposes. Such materials include ammunition, weapons, explosives and explosive actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical supplies, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos, mercury, and polychlorinated biphenyls (PCB's). Nonetheless, the foregoing materials should be considered hazardous to the extent personnel exposure may occur incident to manufacture, storage, use, and demilitarization of these items.

5. Hazardous Material Information System (HMIS). A computer based information system developed to accumulate, maintain, and disseminate important characteristics of hazardous material which exist throughout the DOD.

6. Hazardous Material Turned In For Disposal (HMTID). A ship's unusable HM awaiting transfer to a shore activity for disposal. HMTID may be EHM or HW.

7. Hazardous Material Turned Into Store. A ship's usable HM in excess of needs and awaiting transfer to shore activity.

8. Hazardous Substance. Any hazardous material that, because of its quantity, concentration, or hazardous properties, may pose a substantial hazard to human health or the environment when purposely released or accidentally spilled. See hazardous material.

9. Hazardous Waste (HW). Any discarded or abandoned hazardous substance as defined in 40 CFR 261 or applicable state regulations where the state has been granted enforcement authority by the Environmental Protection Agency (EPA). It may include any discarded liquid, semisolid, or countenanced gaseous material. Hazardous waste does not include EHM with expired shelf-life unless determined as such by a Defense Reutilization and Marketing Office.

10. Hazardous Waste Manifest. A shipping document which must originate with and be signed by the HW generator and EPA permit holder having an RCRA Identification Number before the HW may be transported or offered for transportation off the installation. The generator must provide specific information on the manifest (40 CFR 262) and designate one permitted Treatment, Storage, and Disposal facility to handle the waste. The EPA document is EPA form 8700-22A. Where states have prescribed the use of specific forms, such forms must be used.

11. Hazardous Waste Minimization. Consists of three parts:

a. Avoiding HW generation by minimizing and controlling HM acquisition and use, and by applying best management, engineering, and equipment to Navy processes and procedures.

b. Recycling HW to return it to a ready-for-use state.

c. Treating HW to reduce the volume or to reduce it to a nonhazardous state.

12. Hazard Communication (HAZCOM). A phrase and acronym derived from 20 CFR 1910.1200, the OSHA Hazard Communication Standard, that, where used as a noun or an adjective, means a requirement or requirements related to the standard. The performance elements of the standard involve the following: a list of hazardous chemicals, MSDSs, labels and other forms of warning, personnel training, non-routine tasks, contractor employers and employees, personnel accessibility to the list of chemicals and MSDSs, and a HAZCOM program plan.

13. Laboratory. A term referring to research laboratories and chemical analytical laboratories that are managed and staffed by academically trained and qualified chemists or other professionals having a minimum of a 4-year earned college degree. The term, as used in this instruction, does not include the entire installation having "laboratory" in their organization name, or material laboratories that mainly characterize the physical properties of material. The term is intended to describe functional room(s) or area(s) where specific analytical and research tasks are performed.

14. Material Safety Data Sheet (MSDS). A Material Safety Data Sheet, OSHA Form 174 or an equivalent form containing the identical data elements, must be used by manufacturers of chemical products to communicate to users the chemical, physical, and hazardous properties of their product to comply with the OSHA Hazard Communication Standard, 29 CFR 1910.1200. The completed form identifies key information on the product: name, address, and emergency contact for the manufacture; the identity of hazardous ingredients; physical/chemical characteristics; fire and explosion hazard data; reactivity data; health hazard data; precautions for safe handling and use; and control measures. It should be emphasized that OSHA Form 20 or DD-1813 forms are considered obsolete and should not be used for supplying MSDS information. All data submitted must comply with the provisions of FED-STD 313C (NOTAL).

15. Procurement. See "Acquisition," paragraph 1 of this enclosure.

16. Recycled Material. Recycled material is material that can be utilized in place of a raw or source material in manufacturing a product. See 40 CFR 261.

17. System Acquisition. The process by which weapon systems, weapon platforms, and related equipment are conceived, designed, obtained, and introduced into operational use.